

Appl. No. 09/877,933  
AMENDMENT FAXED ON SEPTEMBER 17, 2004  
REPLY TO OFFICE ACTION OF JUNE 18, 2004

PATENT

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings of claims in the application:

**Listing of Claims:**

1. (Original) A method of diagnosing infection of a mammal by a *Cryptosporidium* species, the method comprising:  
contacting a stool sample obtained from the mammal with a capture reagent which binds to *Cryptosporidium* protein disulfide isomerase, wherein the capture reagent forms a complex with the protein disulfide isomerase if the protein disulfide isomerase is present in the stool sample; and  
detecting whether protein disulfide isomerase is bound to the capture reagent, wherein the presence of protein disulfide isomerase is indicative of *Cryptosporidium* infection of the mammal.
2. (Currently Amended) The method of claim 1, wherein the capture reagent comprises an antibody that specifically binds to protein disulfide isomerase ~~comprises an amino acid sequence at least ten consecutive amino acids of which are substantially identical to a subsequence of an~~ the amino acid sequence  
AWFCGTNEDFAKYASNIRKVAADYREKYAFVF (SEQ ID NO: 3).
3. (Currently Amended) The method of claim 2, wherein the capture reagent comprises an antibody that specifically binds to protein disulfide isomerase ~~has an amino acid sequence that is substantially identical to the amino acid sequence of~~ SEQ ID NO: 2.
4. (Original) The method of claim 1, wherein the capture reagent comprises an antibody which binds to protein disulfide isomerase.

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5. (Original) The method of claim 4, wherein the antibody is a recombinant antibody.
6. (Original) The method of claim 5, wherein the antibody is a recombinant polyclonal antibody.
7. (Canceled)
8. (Original) The method of claim 1, wherein the capture reagent is immobilized on a solid support.
9. (Original) The method of claim 8, wherein the capture reagent is immobilized on the solid support prior to contacting the capture reagent with the test sample.
10. (Original) The method of claim 1, wherein the detection of the protein disulfide isomerase is performed by contacting the protein disulfide isomerase with a detection reagent which binds to the protein disulfide isomerase.
11. (Original) The method of claim 10, wherein the detection reagent comprises an antibody which binds to protein disulfide isomerase.
12. (Original) The method of claim 10, wherein the detection reagent comprises a detectable label.
13. (Original) The method of claim 12, wherein the detectable label is selected from the group consisting of a radioactive label, a fluorophore, a dye, an enzyme, and a chemiluminescent label.
14. (Original) A kit for diagnosing infection of a mammal by a *Cryptosporidium* species, the kit comprising:
  - a solid support upon which is immobilized a capture reagent which binds to a protein disulfide isomerase of *Cryptosporidium parvum*; and
  - a detection reagent which binds to the protein disulfide isomerase.

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15. (Original) The kit according to claim 14, wherein the kit further comprises a positive control that comprises a protein disulfide isomerase.

16. (Currently Amended) The kit according to claim 15, wherein the capture reagent comprises an antibody that specifically binds to protein disulfide isomerase ~~comprises an amino acid sequence of which at least ten consecutive amino acids are substantially identical to~~ as the amino acid sequence AWFCGTNEDFAKYASNIRKVAADYREKYAFVF (SEQ ID NO: 3).

17-31. (Canceled)